

A Rare Species of the Spider, *Steatoda phalerata*
(PANZER, 1801) from Korea
(Araneae: Theridiidae)

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Abstract A rare species of spider for the Korean fauna, *Steatoda phalerata* (PANZER, 1801), is reported. A male of the spider collected from Daechon-si, Chungchongnam-do, Korea is described and illustrated. The species is recorded from Korea for the first time.

The spiders of the genus *Steatoda* from Korea were recently revised by PAIK (1995) and 7 species including two new species, *S. octomaculata* PAIK, 1995, and *S. ulleungensis* PAIK, 1995, and one newly recorded species, *S. albomaculata* (DE GEER, 1778), were reported.

In this paper, the authors will describe *Steatoda phalerata* (PANZER, 1801) new to the Korean fauna, on the basis of a male collected at Daechon-si, Chungchongnam-do, Korea. This species has a wide distribution from Europe and N Africa to Asia Minor, Karakorum and Trans-Baikal area. However, it seems rare in the Far East.

Though the female of this species was reported from Hubei Province (HU, 1984) and Xinjiang Uygur Autonomous Region (HU & WU, 1989) in China, the species was not found in Korea up to the present. The male is recorded from the Far East for the first time in the present paper.

***Steatoda phalerata* (PANZER, 1801)**
(Figs. 1–6)

Phalangium phaleratum PANZER, 1801, pl. 21.

Aranea signata WALCKENAER, 1802, p. 209.

Araneus serratipes SCHRANK, 1803, p. 233(♂).

Araneus serratipes nofata LATREILLE, 1804, p. 234.

Theridium signatum WALCKENAER, 1805, p. 76.

Drassus phaleratus SUNDEVALL, 1831, p. 133 (♂♀).

Theridium quadrifasciatum HAHN, 1831, p. 60 (♂♀).

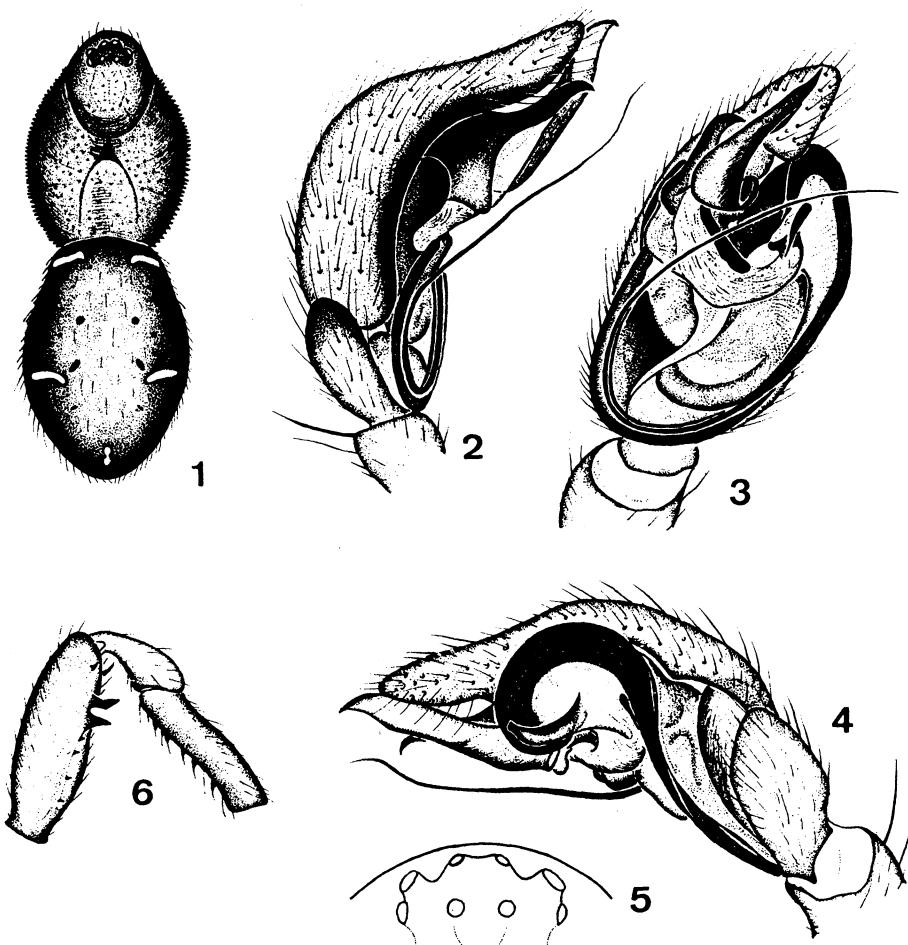
Asagena phalerata: SIMON, 1864, p. 464; 1914, pp. 282, 305.—LESSERT, 1910, p. 123.—WIEHLE, 1937, p. 202, figs. 228–236 (♂♀).—ROEWER, 1942, p. 395.—LOCKET & MILLIDGE, 1953, p. 54, fig. 36 (♂♀).—BONNET, 1955, p. 754.—TYSCHCHENKO, 1971, p. 144, figs. 363, 366, 367 (♂♀).—PRISNIY, 1981, p. 201, figs. 10–18 (♂♀).—SAUER & WUNDERLICH, 1982, p. 93.—HU, 1984, p. 158, fig. 162 (♀).

Steatoda phalerata: LOCKET et al., 1974, p. 49.—JONES, 1983, p. 216.—ZHU, 1983, p. 47.—ROBERTS, 1985, p. 178, fig. 79 (♂♀).—ZHANG, 1987, p. 110, fig. 90 (♀).—HU & WU, 1989, p. 132, fig. 103 (♀).—PLATNICK, 1989, p. 201; 1991, p. 214.—HEIMER & NENTWIG, 1991, p. 296,

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Figs. 1-6. *Steatoda phalerata* (PANZER, 1801).—1. Male body, dorsal view. 2. Male left palp, prolateral view. 3. Same, ventral view. 4. Same, retrolateral view. 5. Male, eye area. 6. Male, femoral apophysis of leg II.

fig. 796(♂ ♀).

Description. Male. Measurements (in mm): Body length 5.04; carapace length 2.52, width 1.91; abdomen length 2.24, width 1.87; sternum length 1.22, width 1.12; chelicera length 0.68 width 0.43; endite length 0.58; width 0.36; labium length 0.22, width 0.50; head width 1.37; anterior eye row 0.55, posterior eye row 0.54. Lengths of legs as shown in Table 1.

Cephalothorax: Carapace dark reddish brown with many wrinkles and fine tubercles on whole surface, longer than wide [carapace index 76 (width/length × 100) and

Table 1. Measurements of legs of *Steatoda phalerata* (PANZER, 1801) (♂; in mm).

Leg	Femur	Patella & Tibia	Metatarsus	Tarsus	Total
I	1.98	2.16	1.40	0.79	6.33
II	1.66	1.89	1.08	0.72	5.35
III	1.33	1.48	0.97	0.65	4.43
IV	1.98	2.34	1.40	0.79	6.51

head width index 85 (head width/carapace width \times 100)]. Head region more or less rised. Median groove horizontally concaved. Cervical and radial grooves indistinct. Marginal edges serrated.

Eye area: Posterior median eye light coloured and the others dark, anterior eye row slightly recurved, posterior eye row slightly procurved, anterior and posterior lateral eyes almost in contact with each other; anterior eye row longer than posterior eye row (55: 54). Clypeal height slightly longer than the distance between anterior median eyes.

Chelicerae: Brown, more or less weak, armed with one promarginal tooth and no retromarginal tooth.

Endite: Dark reddish brown, swelled thickly.

Labium: Trapezoid, wider than long (7:5), shorter than a half of endite.

Sternum: Shield-shaped, convex on the middle surface; rear tip not inserting between the hind coxae; reddish brown and thickly covered with particle-shaped specks all over the surface.

Legs: femora of legs I and II dark brown, those of legs III and IV pale brown, all the other segments yellowish brown; femora and tibiae of legs I and IV irregularly armed with numerous toothlike apophyses in the retrolateral part of the ventral surface. Femur II characteristic, with two blade-shaped apophyses, one gimlet-shaped apophysis and 4–5 denticles in a line on the retromargin. Leg formula 4–1–2–3; lengths of the legs 100: 85: 70: 103 in the ratio.

Palpal organ: Embolus long and coiled delicately like a wire, terminal apophysis stretched like a beak of a snipe bird.

Abdomen: Long ellipse-shaped; abdomen index 66 (width/length \times 100); uniformly black with two pairs of definite yellowish white horizontal patterns, a small, 8-shaped dots at the posterior part and three pairs of reddish brown muscle impressions. Ventral surface dark brown with no patterns.

Colulus: More or less large.

Specimen examined. Male, 19 May 1991. Daechon-dong, Daechon-si, Chung-chongnam-do, Korea (N 35°16'; E 127°10') KIM Seung-Tae leg.

Distribution. Korea (new record), China, SSSR, Europe, N Africa.

References

BONNET, P., 1955. *Bibliographia aranearum*, 2 (1): 1–918. Toulouse.
 HAHN, C. W., 1831. *Die Arachniden*, 1: 1–129, pl. I–XXXVI. Nürnberg. (Not seen.)
 HEIMER, S., & W. NENTWIG, 1991. *Spinnen Mitteleuropas: Ein Bestimmungsbuch*. 543 pp. Verlag Paul Parey, Berlin.
 HU, J. L., 1984. *The Chinese Spiders Collected from the Fields and the Forests*. 442 pp. Tianjin Press Sci. Tech.

HU, J. L., & W. G. WU (ed.), 1989. Spiders from Agricultural Regions of Xinjiang Uygur Autonomous Region, China (Araneida, Aranæae). 435 pp. Shandong Univ. Publ. House, Jinan.

JONES, D., 1983. A Guide to Spiders of Britain and Northern Europe. 320 pp. Hamlyn Publ. Co.

LATREILLE, P. A., 1804. Histoire Naturelle Générale et Particulière des Crustacés et des Insectes, 7: 144–305, pl. LXII–LXIV. Paris.

LESSERT, R. DE, 1910. Araignées. In: Catalogue des Invertébrés de la Suisse. Fas. 3. 639 pp. Mus. Hist. nat. Genève.

LOCKET, G. H., & A. F. MILLEDGE, 1953. British Spiders II. 449 pp. Ray Soc., London.

—, — & P. MERRETT, 1974. British Spiders III. 314 pp. Ray Soc., London.

PAIK, K. Y., 1995. Korean spiders of the genus *Steatoda* (Aranæae: Theridiidae). *Korean Arachnol.*, **11** (1): 1–14.

PANZER, G. W. F., 1801. Faun. Insect. German. Initia, Hefte 78, fol. 21 (not seen).

PLATNICK, N. I., 1989. Advances in Spider Taxonomy 1981–1987. 673 pp. Manchester Univ. Press.

— 1991. Advances in Spider Taxonomy 1988–1991, with synonymies and transfers 1940–1980. 846 pp. New York Entomological Society.

PRISNIY, A. V., 1981. *Asagena meridionalis* (KULCZYŃSKY, 1894) (Aranæi: Theridiidae). —A new for the USSR species of spiders. *Ent. Obozr.*, **60**: 201–204 (not seen).

ROBERTS, M. J., 1985. The Spiders of Great Britain and Ireland, I. 229 pp. Harley Books Colchester, England.

ROEWER, C. F., 1942. Katalog der Aranæae von 1758 bis 1940, I. 1,040 pp. Friendländer & Sohn, Berlin.

SAUER, F., & J. WUNDERLICH, 1985. Die Schönsten Spinnen Europas. Sauers Naturführer. 196 pp. Fauna-Verlag, Karlsfeld.

SCHRANK, F. VON P., 1803. Fauna Boica, **3** (1): 1–272. Landshut.

SIMON, E., 1864. Histoire Naturelle des Araignées (Aranéides). 540 pp. Paris.

— 1914. Famille Theridiidae. *Les Arachnides de France*, **6** (1): 1–308.

SUNDEVALL, J. C., 1831. Svenska Spindlarmes beskrifning. Fortsättning. *N. Act. reg. Soc. sci. Upsal.*, **1831**: 108–148.

TYSCHCHENKO, V. P., 1971. Oprеделitel paukov evropejskoi casti: SSSR. 281 pp. Leningrad.

WALCKENAER, C. A., 1802. Faune Parisienne. Insectes, **2**: 187–250. Paris.

— 1805. Tableau des Aranéides ou Caractères essentiels des tribus, genres, familles et races que renferme le genre Aranæa de LINNE, avec la désignation des espèces comprises dans chacune de ces divisions. xii+88 pp, 1 tab., 9 pls. Paris.

WIEHLE, H., 1937. Theridiidae oder Haubennetz-spinnen (Kugelspinen). *Tierwelt Deutschlands*, **33**: 119–222.

ZHANG, W. S. (ed), 1987. Farm Spiders from Hubei Province. 299 pp. Hubei Sci. Tech. Press.

ZHU, C. D., 1983. A list of Chinese spiders (rev. in 1983). *J. Bethune Med. Univ.*, **9** (suppl): 1–130.